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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/844,624	04/26/2001	Paul Richard Woods	10003959-1	2408

7590 08/19/2004

AGILENT TECHNOLOGIES  
INTELLECTUAL PROPERTY ADMINISTRATION  
LEGAL DEPT., MS DL429  
P.O. BOX 7599  
LOVELAND, CO 80537

EXAMINER

MYERS, PAUL R

ART UNIT	PAPER NUMBER
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2112

DATE MAILED: 08/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/844,624

Applicant(s)

WOODS ET AL.

Examiner

Paul R. Myers

Art Unit

2112

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).
2. In response to Applicant's argument that there is no suggestion to combine the references, the Examiner recognizes that references cannot be arbitrarily combined and that there must be some reason why one skilled in the art would be motivated to make the proposed combination of primary and secondary references. In *re Nomiya*, 184 USPQ 607 (CCPA 1975). However, there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. In *re McLaughlin*, 170 USPQ 209 (CCPA 1971). references are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. In *re Bozek*, 163 USPQ 545 (CCPA) 1969.

The test of obviousness is:

"whether the teachings of the prior art, taken as a whole, would have made obvious the claimed invention," *In re Gorman*, 933 F.2d at 986, 18 USPQ 2d at 1888.

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Subject matter is unpatentable under section 103 if it "'would have been obvious . . . to a person having ordinary skill in the art.' While there must be some teaching, reason, suggestion, or motivation to combine existing elements to produce the claimed device, it is not necessary that the cited references or prior art specifically suggest making the combination." *In re Nilssen*, 851 F.2d 1401, 1403, 7 USPQ 2d 1500, 1502 (Fed. Cir. 1988).

"Such suggestion or motivation to combine prior art teachings can derive solely from the existence of a teaching, which one of ordinary skill in the art would be presumed to know, and the use of that teaching to solve the same [or] similar problem which it addresses." *In re Wood*, 599 F.2d 1032, 1037, 202 USPQ 171, 174 (CCPA 1979).

"In sum, it is off the mark for litigants to argue, as many do, that an invention cannot be held to have been obvious unless a suggestion to combine prior art teachings is found *in* a specific reference."

Entire quote from *In re Oetiker*, 24 USPQ 2d 1443 (CAFC 1992).

Accordingly, it is not required to disclose or specifically suggest particular elements. Instead the measure is what the teachings would suggest to one of ordinary skill in the art, not what the art specifically suggests.

While there is no requirement that the motivation to combine be *in* a specific reference in this case this motivation is expressly articulated in Hidehiko (Paragraph 0005).

Stated differently, the court has consistently stated that a court or examiner may find a motivation to combine prior art references in the nature of the problem to be solved. See Pro-Mold, 75 F.3d at 1573; Display Techs., Inc. v. Paul Flum Ideas, Inc., 282 F.3d 1340, 1346-47 (Fed. Cir. 2002); In re Huang, 100 F.3d 135, 139 n.5 (Fed. Cir. 1996). This form of motivation to combine evidence is particularly relevant with state saving with power loss.

3. In regards to applicants argument that the combination "teaches away" from Maeda: The examiner was unable to find any statement in Maeda regarding a disadvantage of using a scan path state save method.

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4. In regards to applicants argument that the proposed combination of Maeda and Hidehiko does not appear to be enabled by the disclosure of the cited references: Maeda teaches the claimed power saving including saving the state data. Maeda however teaches saving the state data to a hard drive instead of using a scan path to save the data. Hidehiko teaches using a scan path to save data to an external memory when power is removed. Thus the combination teaches the claimed saving the state data using a scan path to save the data to an external memory when power is removed. "Not only the specific teachings of a reference but also reasonable inferences which the artisan would have logically drawn therefrom may be properly evaluated in formulating a rejection." *In re Preda*, 401 F.2d 825, 159 USPQ 342 (CCPA 1968) and *In re Shepard* 319 F.2d 194, 138 USPQ 148 (CCPA 1963).

5. In regards to applicants argument that "the mere fact that the prior art may be modified in the manner suggested by the examiner does not make the modification obvious unless the prior art suggested the desirability of the modification": First. Hidehiko expressly suggests the desirability of the modification. Second. The test of obviousness is:

"whether the teachings of the prior art, taken as a whole, would have made obvious the claimed invention," *In re Gorman*, 933 F.2d at 986, 18 USPQ 2d at 1888.

Subject matter is unpatentable under section 103 if it "'would have been obvious . . . to a person having ordinary skill in the art.' While there must be some teaching, reason, suggestion, or motivation to combine existing elements to produce the claimed device, it is not necessary that the cited references or prior art specifically suggest making the combination." *In re Nilssen*, 851 F.2d 1401, 1403, 7 USPQ 2d 1500, 1502 (Fed. Cir. 1988).

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"Such suggestion or motivation to combine prior art teachings can derive solely from the existence of a teaching, which one of ordinary skill in the art would be presumed to know, and the use of that teaching to solve the same [or] similar problem which it addresses." *In re Wood*, 599 F.2d 1032, 1037, 202 USPQ 171, 174 (CCPA 1979).

"In sum, it is off the mark for litigants to argue, as many do, that an invention cannot be held to have been obvious unless a suggestion to combine prior art teachings is found *in* a specific reference."

Entire quote from *In re Oetiker*, 24 USPQ 2d 1443 (CAFC 1992).

Accordingly, it is not required to disclose or specifically suggest particular elements. Instead the measure is what the teachings would suggest to one of ordinary skill in the art, not what the art specifically suggests.

6. In regards to applicants argument that Hidehiko's technique is directed to protecting data loss in the event of failure or other power interruption. Maeda appears to be directed to an apparatus for recovering resume data destroyed because of user error or battery exhaustion: The examiner notes these are the exact same field of endeavor thus the combination is clearly obvious. Maeda is also directed to power saving (see any of Column 1 lines 13-25, Column 1 line 66 to Column 2 line 20 and Column 3 lines 1-10) which is the same as applicants saving power by removing power from the device.

7. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the sub micron construction) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

8. In response to applicant's argument that the removal of power from the elements saves more power than simply stopping the clock, the fact that applicant has recognized another

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advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). Maeda also teaches removing the power.

9. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

10. In response to applicant's argument that Maeda and Hidehiko are nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Maeda is in the same field of endeavor as Hidehiko that of saving and recovering data and in the field of power conservation.



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11. In regards to applicants argument that Maeda does not teach stopping the clock. The examiner has reviewed Maeda and it appears Applicants are correct. While Maeda's detection circuit contains the clock generation circuitry and Maeda's detection circuit expressly removes power from the switched power area, Maeda does not expressly state the clock is removed from the switched power area along with the power. The examiner cannot conceive of any reason for maintaining the clock while power is removed. However, since Maeda does not expressly state the clock is stopped. One of the many references that expressly teach stopping the clock will be applied and this action will be made non-final.

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda PN 5,832,281 in view of Hidehiko et al JP06052070A and Smith et al PN 5,167,024.

14. In regards to claims 1, 5, 13, 18: Maeda teaches a circuit comprising: a constant power area (50) that receives constant power; a switched power area (11) that receives interruptible power; and an inactive state power reduction manager (38) disposed in the constant power area (50) for receiving a sleep signal (suspend signal from switch 6), for performing a state save and for asserting a power control signal (on/off) that is used to disconnect the switched power area (11) from a power supply. Maeda does not teach the state save being a scan-based state save.

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Maeda also does not expressly teach stopping the clock. Hidehiko teaches the use of a scan-based state-save and restore of data in a circuit upon power source discontinuation. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use a scan-bases state-save as the state save in Maeda because this would have provided a fast method of data evacuation. Smith et al teaches stopping the clock and removing power from circuitry in a computer system (Figure 1 items 27 and 26 also Figures 2 and 3). It would have been obvious to stop the clock when powering down because this would have saved power and prevented wasting the clock signals being applied to powered down circuitry.

15. In regards to claims 2, 19: Maeda teaches a power switch (power switch 5 or alternatively any of the output power switches of figure 3 from the power supply and the host power management section 29) attached to the inactive state power reduction manager (38 or alternatively via 29).

16. In regards to claim 3: Maeda shows power switches in figure 3. Maeda is totally silent as to the type of switches. Official notice is taken that FET switches are common switches. It would have been obvious to a person of ordinary skill in the art to use common FET switches as the power switches because these are the normal type of switches. The examiner further notes Smith et al expressly teaches FET switches.

17. In regards to claims 4, 14: Hidehiko teaches scan control for signals for controlling the scan based state save.

18. In regards to claim 6: Maeda teaches the wake up signal being an external signal.

19. In regards to claim 7: Maeda teaches the wake up signal being provided by a human trigger.

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20. In regards to claims 8, 15-17, 20: Maeda teaches a memory storing the state information, including reading and writing.

21. In regards to claim 9: Maeda teaches the memory storing the state information is powered by a battery, thus it is volatile memory.

22. In regards to claim 10: Maeda teaches the memory. Maeda is silent as to whether the memory is random access or not. Official notice is taken that random access memories are common. It would have been obvious to use a random access memory because this would have used a common memory structure.

23. In regards to claim 11: Maeda teaches the memory storing the state information is powered by a battery, thus the memory is in the constant powered area.

24. In regards to claim 12: Maeda's circuit is a board level circuit.

25. In regards to claims 21-23: Maeda teaches receiving a wake up signal (resume signal from switch 6), and responsive thereto for deasserting the power control signal (on/off) that is used to connect the switched power area (11) to the power supply, for performing a state restore. Smith teaches resuming a clock.

### ***Conclusion***

26. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

All of the newly cited references teach both removing power from a portion of the computer system and also removing the clock.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul R. Myers whose telephone number is 703 305 9656. The examiner can normally be reached on Mon-Thur 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on 703 305 4815. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PRM  
March 12, 2004



PAUL R. MYERS  
PRIMARY EXAMINER